

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P307277

Luminaire Tested: **14FCZ2-20-UNV-L82765-RDP-CP187-W2A-U-2700K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P307277
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L82765-RDP-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 2700K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1107.0 lumens
Efficiency: N/A
Efficacy: 67.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

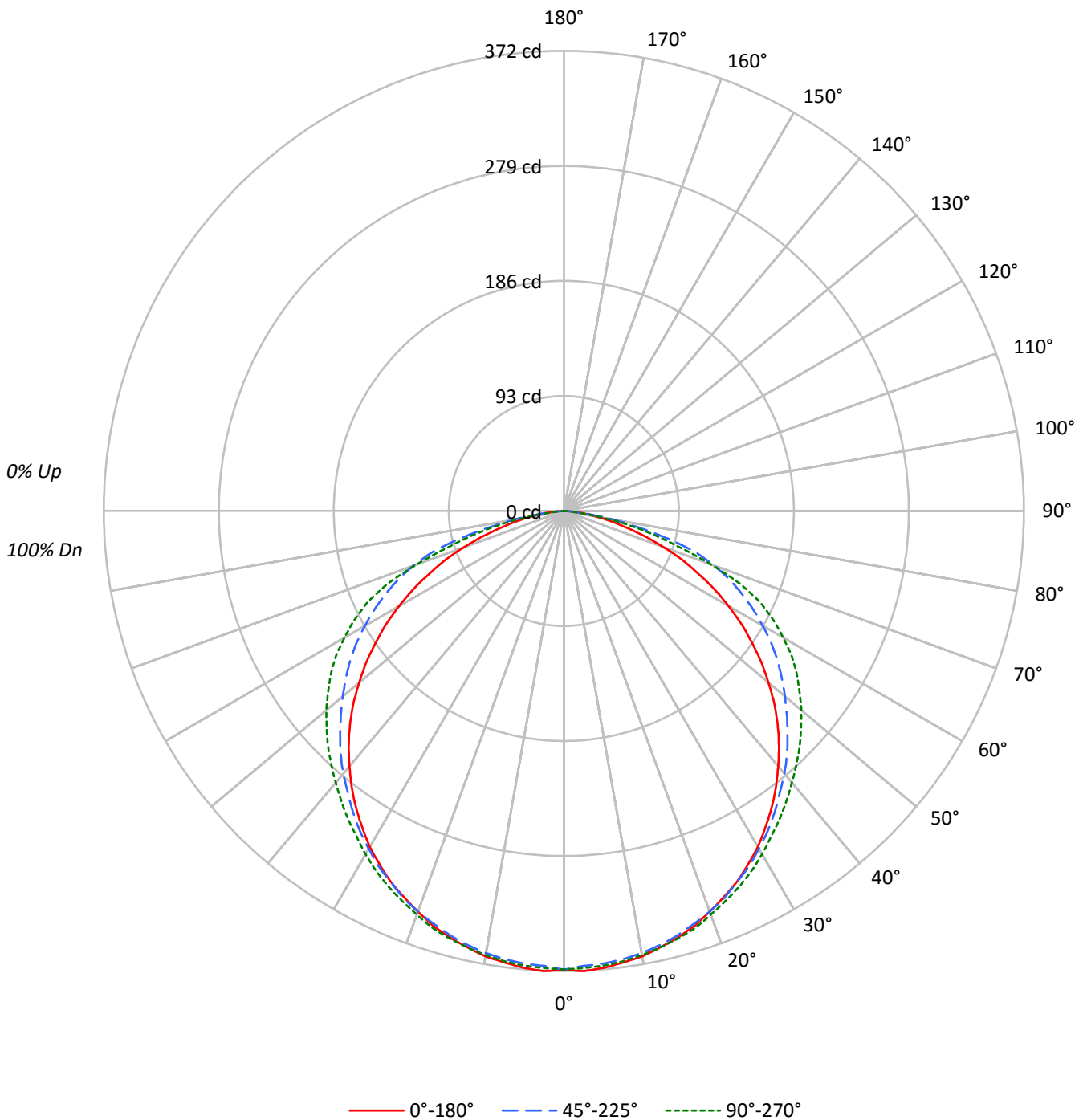
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	998	998	998
5°	1002	992	997
10°	999	992	997
15°	994	990	997
20°	987	987	995
25°	983	983	996
30°	975	980	996
35°	963	977	999
40°	947	974	1008
45°	931	973	1026
50°	905	977	1049
55°	872	989	1079
60°	828	1000	1102
65°	765	1012	1117
70°	680	1020	999
75°	548	917	800
80°	429	643	522
85°	293	185	133



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	3.2
10°-20°	100.7	9.1
20°-30°	153.3	13.8
30°-40°	186.7	16.9
40°-50°	198.1	17.9
50°-60°	187.0	16.9
60°-70°	150.9	13.6
70°-80°	81.9	7.4
80°-90°	13.3	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	289.1	26.1
0°-40°	475.8	43.0
0°-60°	860.9	77.8
0°-90°	1107.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1107.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	371	371	371	371	371	
5°	371	370	367	370	369	35
15°	357	356	355	358	358	101
25°	331	330	331	334	335	152
35°	293	295	297	303	304	183
45°	245	248	256	265	270	188
55°	186	194	211	225	230	166
65°	120	135	159	172	175	119
75°	53	77	88	80	77	58
85°	10	10	6	5	4	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	370.8	370.8	370.8	370.8	370.8
2.5°	372.5	370.8	368.2	370.8	369.9
5°	370.8	369.9	367.3	369.9	369.0
7.5°	368.2	368.2	365.6	367.3	367.3
10°	365.6	364.7	363.0	365.6	364.7
12.5°	361.3	360.4	359.5	362.1	361.3
15°	356.9	356.1	355.2	357.8	357.8
17.5°	351.7	350.9	350.0	353.5	353.5
20°	344.8	344.8	344.8	348.3	347.4
22.5°	337.9	337.9	338.8	342.2	341.4
25°	331.0	330.1	331.0	334.5	335.3
27.5°	322.4	323.2	324.1	327.6	328.4
30°	313.7	314.6	315.5	319.8	320.6
32.5°	303.4	305.1	306.8	312.0	312.0
35°	293.0	294.7	297.3	303.4	304.2
37.5°	281.7	283.5	286.9	293.8	295.6
40°	269.6	272.2	277.4	284.3	286.9
42.5°	257.5	261.0	267.1	274.8	278.3
45°	244.6	248.0	255.8	265.3	269.6
47.5°	230.8	235.1	244.6	256.7	260.1
50°	216.1	222.1	233.3	246.3	250.6
52.5°	201.4	208.3	222.1	235.9	240.3
55°	185.8	193.6	210.9	224.7	229.9
57.5°	170.3	178.9	198.8	213.5	218.7
60°	153.8	164.2	185.8	200.5	204.8
62.5°	137.4	149.5	172.8	187.5	191.0
65°	120.1	134.8	159.0	172.0	175.4
67.5°	103.7	121.0	145.2	154.7	154.7
70°	86.4	105.4	129.6	132.2	127.0
72.5°	69.1	90.7	112.4	102.8	98.5
75°	52.7	76.9	88.2	79.5	76.9
77.5°	39.8	62.2	62.2	57.0	55.3
80°	27.7	47.5	41.5	36.3	33.7
82.5°	18.1	26.8	21.6	17.3	14.7
85°	9.5	10.4	6.0	5.2	4.3
87.5°	3.5	1.7	0.9	1.7	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)